XLED 250 SPOT

PR-8111

This product manual contains important information about the safe installation and use of this product. Please read and follow these instructions carefully before installing and using the product and keep this manual in a safe place for future reference.

PR LIGHTING LTD.
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INDEX

SAFETY INFORMATION AND WARNINGS ---------- 3
PRODUCT INSTALLATION ---------- 4
POWER SUPPLY CONNECTION ---------- 5
DMX CONTROL CONNECTION ---------- 5
DMX TERMINATOR ---------- 6
PRODUCT FUNCTION SETUP ---------- 6
DMX START ADDRESS SETUP ---------- 6
STAND-ALONE MODE ---------- 7
MASTER/SLAVE MODE ---------- 7
OPERATION MENU ---------- 8
DMX PROTOCOL ---------- 10
DISPLAY INFORMATION ---------- 12
MAINTENANCE ---------- 12
PRODUCT CLEANING ---------- 12
TROUBLESHOOTING ---------- 12
TECHNICAL DATA ---------- 13
COMPONENT ORDER CODES ---------- 15
CIRCUIT DIAGRAM ---------- 16

Every ex-company fixture is tested completely and packed properly by the manufacturer. The use explanations and warnings in this manual must be strictly followed .Any damage caused by improper use will not be covered by the manufacturer and / or dealer.

If any technical data changes, further notice won't be offered.

ACCESSORIES

These items are packed together with the product, please check them:

Name	Quantity	Unit	Remark
XLR signal cable	1	PCS	With plug and socket
Safety cord	1	PCS	
This manual	1	PCS	
G clamp	1	PCS	Standard
Ω clamp	1	PCS	Optional

SAFETY INFORMATION AND WARNINGS

After receiving product, please unpack and check if there are any damages caused by transportation. Do not use the fixture if transportation damages occur and contact the manufacturer or the dealer as soon as possible.

The product is only for indoor use, IP20. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow its contact with water or any other liquids .

The unit is only intended for installation, operation and maintenance by qualified personnel.

The product must be installed in a location with good ventilation, at least 50cm from adjacent wall surfaces. Be sure that no fans and ventilation slots are blocked.

Do not project the beam onto inflammable surfaces, minimum distance is 1.3m. ≥ 1.3m

Avoid looking into the light from the fixture directly (especially to **Epileptic Patients)**. The light is harmful to the eye.

Do not attempt to dismantle and/or modify the product in any way.

Electrical connection must only be carried out by qualified personnel.

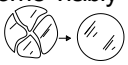
Before installation, ensure that the voltage and frequency of power supply match the power requirements of the fixture .

It is essential that each fixture is correctly earthed and that electrical installation conforms to all relevant standards.

Do not connect this device to any other types of dimmer apparatus.

Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. If the fixture is not in use or before it being cleaned, please hold the plug and unplug the power cord . Never pull out the plug by tugging the power-cord.

The fixture should always be installed with a secondary safety fixing. A safety cord is supplied for this; it should be attached as shown in “installing the unit” section. At the back cover of the base, there is a safety hole for the safety cord, for safety installation, please run the safety cord supplied with the fixture through the safety hole to support the safe installation.

Shields and lens shall be changed if they have become visibly damaged to such an extent than their effectiveness is impaired, for example by cracks or deep scratches. 

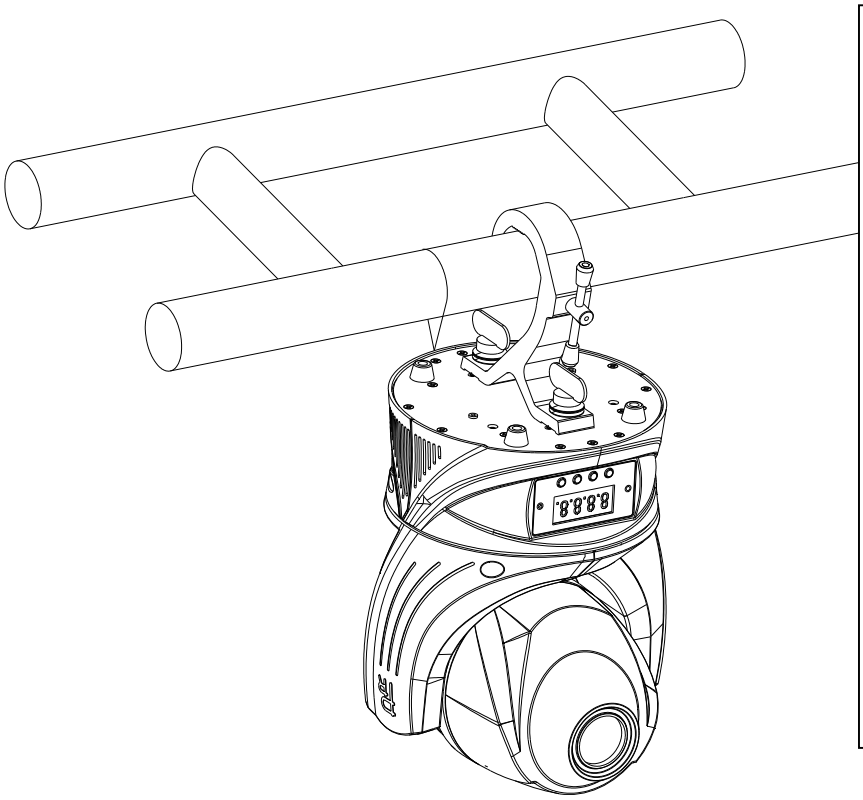
Exterior surface temperatures of the luminaire after 5 minutes operation is 45℃, when steady, it achieves 50℃,

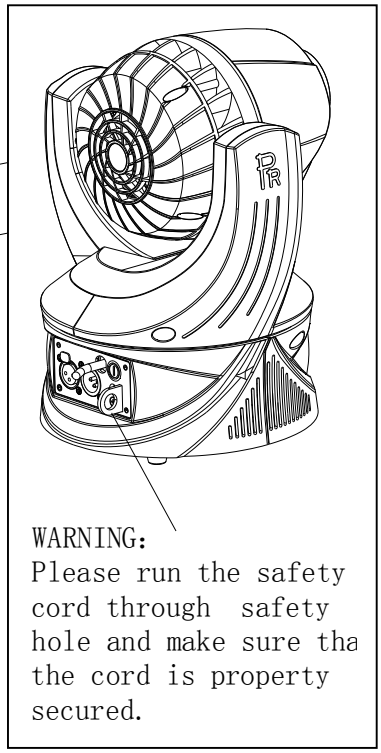
There is no user repairable parts inside the fixture, do not open the housing and never operate the unit with the covers removed. Before the use of the fixture, please check if the covers are fixed well and all screws are fastened.

If any questions, don’t hesitate to consult your dealer or the manufacturer.

Important: Always disconnect from Power Supply, when the device is not in use or before cleaning or any maintenance work!

PRODUCT INSTALLATION





WARNING:
Please run the safety cord through safety hole and make sure tha the cord is property secured.

Take 1 clamp and 1 the safety cord out from the package and mount 1 clamp on the BOTTOM of fixture with 2 retainers attached to the clamp. Hang the fixture on the steel truss and fasten the retainers attached to the clamp. Always ensure that the location that you are going to mount the unit is secure and is strong enough to support the weight of the unit (See the **WARNING** as shown above) **To pass SAFETY CORD through the SAFETY HOLE on the back cover of the base of the fixture for safety!** Always ensure that the unit is firmly anchored to avoid vibration and slipping whilst functioning.

WARNING:
1. The unit MUST be lifted or carried by the HANDLES instead of clamps.
2. For safety the safety cord should bear 10 times of the unit's weight .

POWER SUPPLY CONNECTIONS

Connect the power cord as follows:

L (live) =brown

E (earth) =yellow/green

N (neutral) =blue

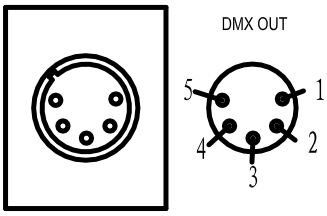
Please be advised to notice power supply's voltage and frequency meet what are described on the nameplate of the product. It is recommended that each unit be power connected separately so that they may be individually switched on and off.

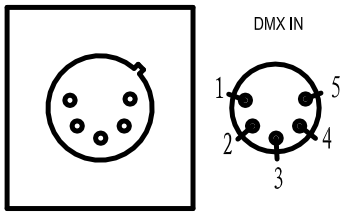
IMPORTANT

It is essential that each unit(yellow/green twin wire) is correctly earthed and the electrical installation conforms to all relevant standards.

DMX CONTROL CONNECTION

5-PIN

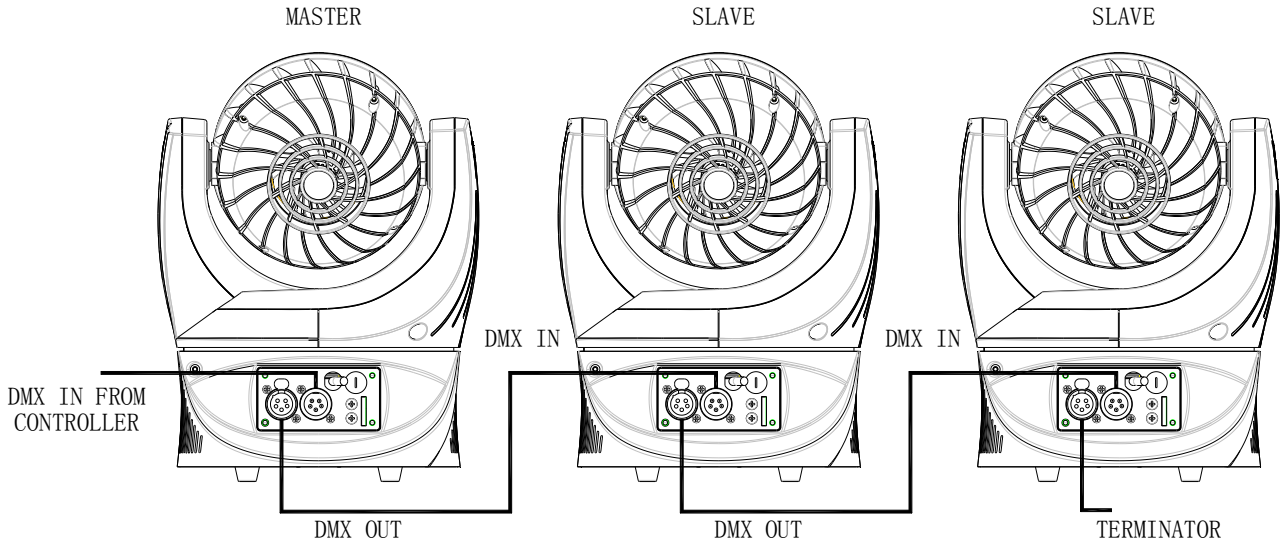




DMX 512	
PIN	FUNCTION
1	GND
2	DATA-
3	DATA+
4	N/C
5	N/C

Connection between controller and unit and between one unit and another must be made with a 2 core-screened cable, with each core having at least a 0.5mm diameter. Connection to the DMX512 input and output ports of the unit is via 5 pin XLR plugs and sockets(which are included with the unit). The XLR's plugs and sockets are connected with wires as shown in the figure above. Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. XLR's plug and socket must not be connected with XLR control wire in any way other than shown as above. The fixture accepts digital control signals in protocol DMX512 (1990).

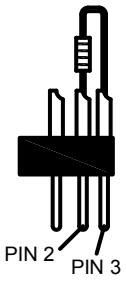
Connect the controller's output to the first fixture's input, and connect the first fixture's output to the second fixture's input and connect the rest fixtures in the same way. Eventually connect the last fixture's output to a DMX terminator as shown in the figure below.

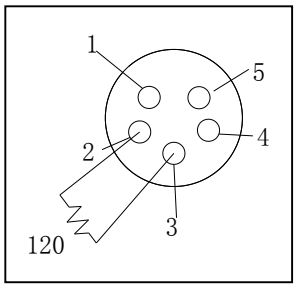


DMX TERMINATOR

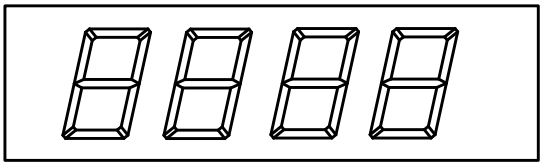
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX512 control signals.
The DMX terminator is simply a Canon connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last fixture in the chain. The connections are illustrated below.

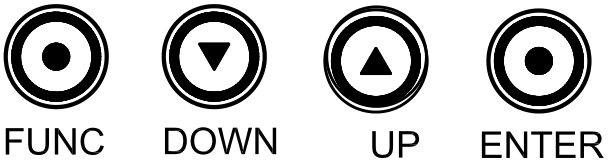
DMX TERMINATOR
CONNECTION
Connect a 120Ω(OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX out socket on the last unit in the chain.





PRODUCT FUNCTION SETUP





Fixture's address and function code configuration can be set conveniently via button switch and LCD display. Press button ENTER more than 5 seconds to unlock panel. LED display shows the fixture's function menu. Each Option of the main menu has its own sub-menu. Each menu stands for specified function of the fixture, please see the details in the following:
Press button UP or DOWN if you want to set or browse through the various Setup Options.
Press button ENTER to save your settings or enter the sub-menus.
Press button UP or DOWN to change the parameters(increase or decrease the numbers)
Press button FUNC, it will return to the upper menu one by one. If the button not pressed, the system will go back to display status automatically.

TO SET THE DMX START ADDRESS

If many fixtures are controlled by the controller, each fixture should be set with a start address to receive signals sent by the controller and respond to it. The fixture have 2 DMX modes. There are standard mode and extended mode For example standard mode has 11 channels, so set the No. 1 Fixture's address 001, No. 2 Fixture's address 012, No. 3 Fixture's address 023 and so on.
Switch on the Fixture. Press button ENTER more than 5 seconds to unlock panel.
Press button FUNC to display **DMX address**;
Press button UP and DOWN, you can set the address;
Press button ENTER to confirm; when powered on next time, it will show the latest number you saved.
Press button FUNC, it will return to the upper menu one by one.

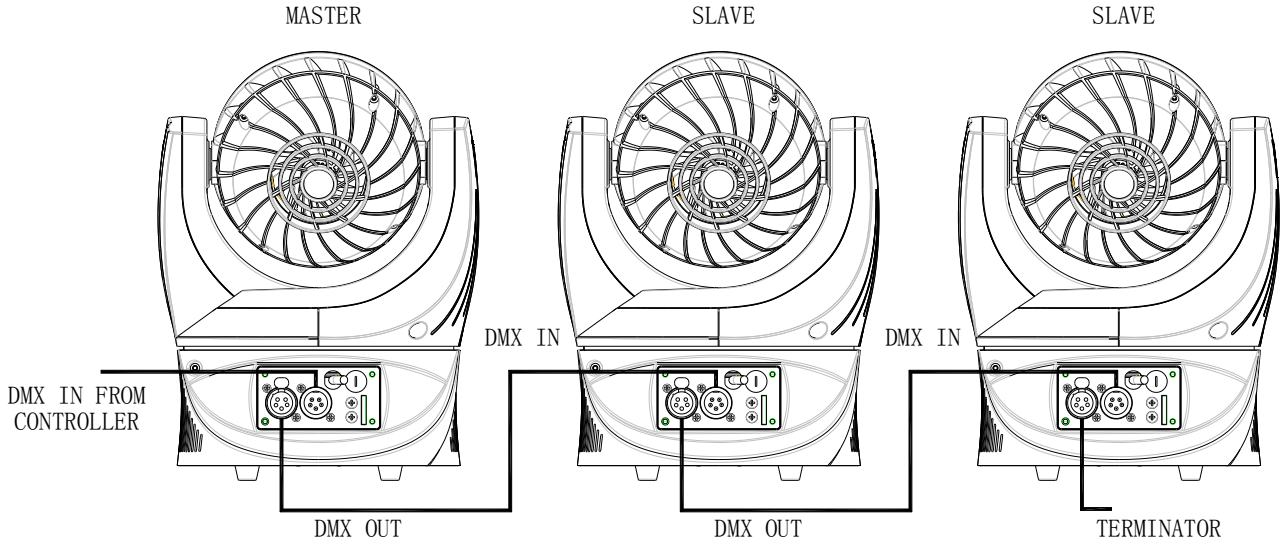
STAND-ALONE MODE

Operate the fixture without connecting a controller, enable the master mode in the operation panel, the fixture will run in Stand-Alone mode automatically.

MASTER/SLAVE MODE

If many fixtures are connected under Master/Slave mode, use XLR-XLR control cable to connect the first fixture's DMX output port with the second fixture's DMX input port, then to connect the second fixture's output port with the third fixture's input port and so on until all the fixtures are connected, the last thing is to plug the terminator at the last fixture's output port. In this case, the first fixture is the master, others are slaves

Set the master's address at 001, Master can be set at any mode(STD mode or extended mode) and slave should be set at same mode as the master's.
After powered on, the group will run under Master/Slave mode.



OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL
AddR DMX Address	XXX （XXX:1~512）		
CNFG Config Settings	dmX DMX mode （Default is：STd）	STd Standard mode	
		SHRT Short mode	
	dISP Display setting （Default is：ON）	ON	
		OFF digital CRT off if buttons not pressed in 5 minutes	
	xyCH Pan Tilt Swap （Default is OFF）	OFF Pan Tilt Swap off	
		ON Pan Tilt Swap on	
	xyCP Pan Tilt Invert （Default is OFF）	OFF Pan Tilt invert off	
		ON Pan Tilt invert on	
	mORS Master/Slave Settings （Default is：SLAV）	SLAV Slave mode	
		mAST Master mode	
	FACT Factory Defaults	yES	
	TRmd(1) Transmit parameters	yES	
INFO Information	TImE Fixture usage time	XXXX Fixture usage time showed	
	VER Software version	X.X.X Software version showed	
TEST Test mode	LAmP LED Lamp	ON Turn on	
		OFF Turn off	
	COwH Color wheel	NO Color	
		Cw1-CW8 Color 1 to Color 8	
		FORw Forward Rotation	
		STOP Stop	
		REVE Reverse rotation	
	FGwH Fixed Gobo wheel	NO No Gobo	
		FGw1-FGW1b Shake 1 to shake 11	
		FORw Forward Rotation	
		REVE	

		Reverse Rotation	
		GWS1-GWSb Shake 1 to shake 11	
	Pan	0-255 540°	
	TILT	0-255 190°	
	P*TS Pan/Tilt speed	0-255 Pan/Tilt speed	
	RESE Reset	YES	
mENU Operation mode	dmx DMX mode		
	PRUN Run preset memory		
	ERUN Run user program		
	ET XX User program （ET01~ET16）	CH01 Strobe	0-255
		CH02 Dimmer	0-255
		CH03 Color wheel	0-255
		CH04 Fixed Gobo wheel	0-255
		CH5 Pan	0-255
		CH6 Tilt	0-255
		CH7 Pan/Tilt speed	0-255
		CH8 Scene hold time	0-255 Time=X*40mS

Remark:

1. In the synchronous control of multiple fixtures, parameters can be transmitted from the master includes: DMX mode, display setting, operation mode(Including user memory);

DMX Protocol

Short Mode	Standard Mode	Function	DMX Value	Description
1	1	Strobe	0	Nil
			001-255	Strobe speed from slow to fast.
2	2	Dimmer	000-255	Linear dimming from dark to bright.
	3	16 Bit Macro	000-255	Linear dimming from dark to bright.
3	4	Color wheel	0-15	White
			16-31	Color 1
			32-47	Color 2
			48-63	Color 3
			64-79	Color 4
			80-95	Color 5
			96-111	Color 6
			112-127	Color 7
			128-143	Color 8
			144-175	Forward Rotation(Speed from slow to fast)
			176-223	Stop at White light
			224-255	Reverse Rotation(Speed from slow to fast)
4	5	Fixed Gobo wheel	0-15	White
			16-23	Gobo 1
			24-31	Gobo 2
			32-39	Gobo 3
			40-47	Gobo 4
			48-55	Gobo 5
			56-63	Gobo 6
			64-71	Gobo 7
			72-79	Gobo 8
			80-87	Gobo 9
			88-95	Gobo 10
			96-103	Gobo 11
			104-135	Forward Rotation(Speed from slow to fast)
			136-167	Reverse Rotation(Speed from slow to fast)
			168-175	Shake 1(Speed from fast to slow)
			176-183	Shake 2 (Speed from fast to slow)
			184-191	Shake 3 (Speed from fast to slow)

			192-199	Shake 4 (Speed from fast to slow)
			200-207	Shake 5 (Speed from fast to slow)
			208-215	Shake 6 (Speed from fast to slow)
			216-223	Shake 7 (Speed from fast to slow)
			224-231	Shake 8 (Speed from fast to slow)
			232-239	Shake 9 (Speed from fast to slow)
			240-247	Shake 10 (Speed from fast to slow)
			248-255	Shake 11 (Speed from fast to slow)
5	6	Pan	000-255	Pan 540°
	7	Pan 16 Bit	000-255	Pan 16 bit precision rotation.
6	8	Tilt	000-255	Tilt 190°
	9	Tilt 16 Bit	000-255	Tilt 16 bit precision rotation.
	10	Pan/tilt speed	000-255	Speed from slow to fast
7	11	Control	000-048	Reserved
			049-255	Reset

. INDICATION OF LED DIGITAL TUBE

Decimal point of the first digital tube	On	DMX signal OK
	Off	No DMX signal
Decimal point of the third digital tube	On	Master / slave signal is OK
	Off	No master / slave signal
Decimal point of the fourth digital tube	On	When setting master mode
	Off	When setting slave mode
Parameters that LED digital tubes display	Flash	Parameters not saved, press “ENTER” to save them

MAINTENANCE

If the Fixture does not function, check if the fuses on the power socket of the unit is broken or not, if broken, they should only be replaced by fuses of the same specification. Should there be damaged call a qualified technician before replacement. The fixture has thermal protection device that will switch off the unit in case of overheating. Should any case like this happen, check if the fans work well or fans and fan screens are blocked, restart the fixture before the problems have been found and resolved.

Any maintenance work should only be carried out by qualified technicians.

PRODUCT CLEANING

To ensure the reliability of the fixture it should be kept clean. It is recommended that the fans should be cleaned every 15 days. The lens should also be regularly cleaned to maintain an optimum light output. **Do NOT use any type of solvent containing chemical elements.**

Cleaning intervals depends on the environment in which the fixture operates and use frequency. A soft cloth and typical glass cleaning products should be used in cleaning the fixtures. It is recommended to clean the external optical system at least once every 20 days.

Do not use any organic solvent, e.g. alcohol, to clean the housing of the apparatus to avoid damages

TROUBLE SHOOTING

PROBLEM	ACTION
The fixture can not start	➢ Check if the fuse on the power socket is broken or not . ➢ Check the status of the fuse
The lamp works normal but the fixture doesn’t respond to the controller	➢ Check if the fixture’s start address is set properly ➢ Check if XLR signal cable is broken or not
The fixture only functions intermittently	➢ Make sure the fans work normally and if dirt blocks fans and fan screens.
The beam appears dim and brightness decreases apparently	➢ Check if the lamps reach the end of their lives ➢ Check if external and internal optical systems are clean or not.

TECHNICAL DATA

LIGHT SOURCE:

LUMINUS PHLATELIGHT LED: CBT-90-W

VOLTAGES:

90~264VAC 50/60Hz

POWER CONSUMPTION:

120W@220V

HEAD MOVEMENT:

Pan 540º, Tilt 190º;

Pan Tilt Swap and Invert Function ； Auto-position correction & Magnetic sensor positioning.

COLOR SYSTEM:

LED:6500K

Color wheel：8 Color + 1 white

GOLOS SYSTEM

1 Fixed Gobo wheel:11 Gobo + 1 White

Image size：Φ15mm

DIMMER:

0-100% linearly adjustable

STROBE:

Electronic strobe, 0.3~20 F.P.S

LENS ANGLE: 20°

CONTROL:

DMX512, 5 pin interfaces

12channels in standard mode, and 16channels in extended mode.

Master/slave mode

Stand-alone mode

Preset mode

OTHER FUNCTIONS:

Adjustable Pan & Tilt speed

Fixture usage time display

Software version display

HOUSING:

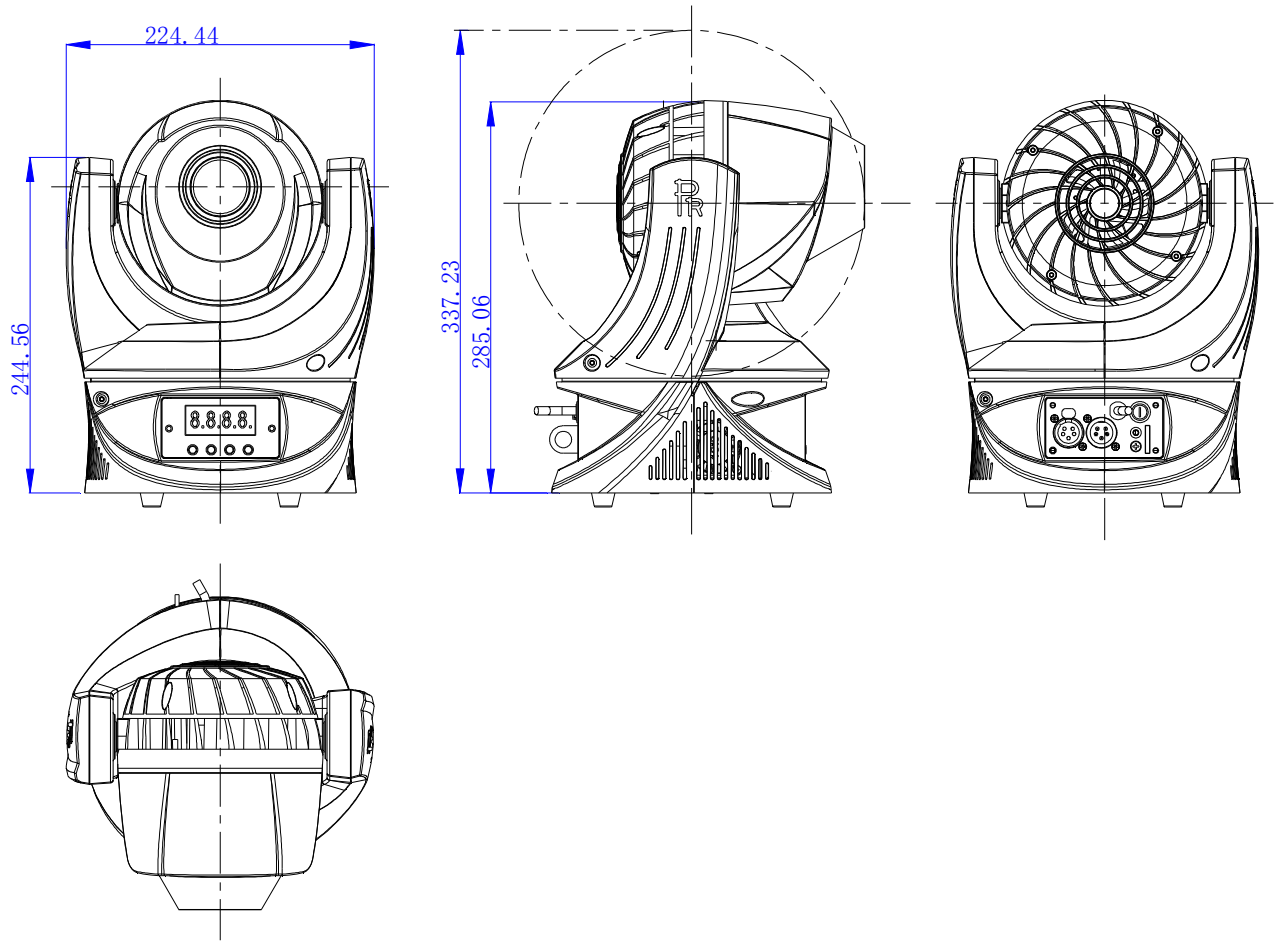
High temperature engineering-plastic, IP20

WEIGHT:

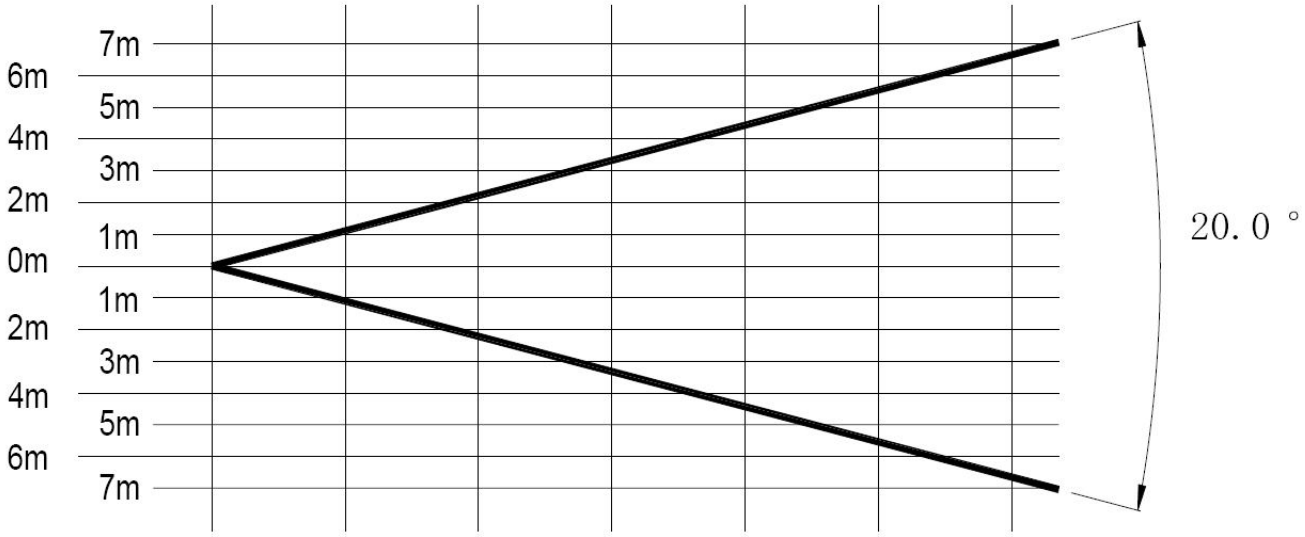
4.5 Kg

SIZES:

See at below



LIGHT OUTPUT:

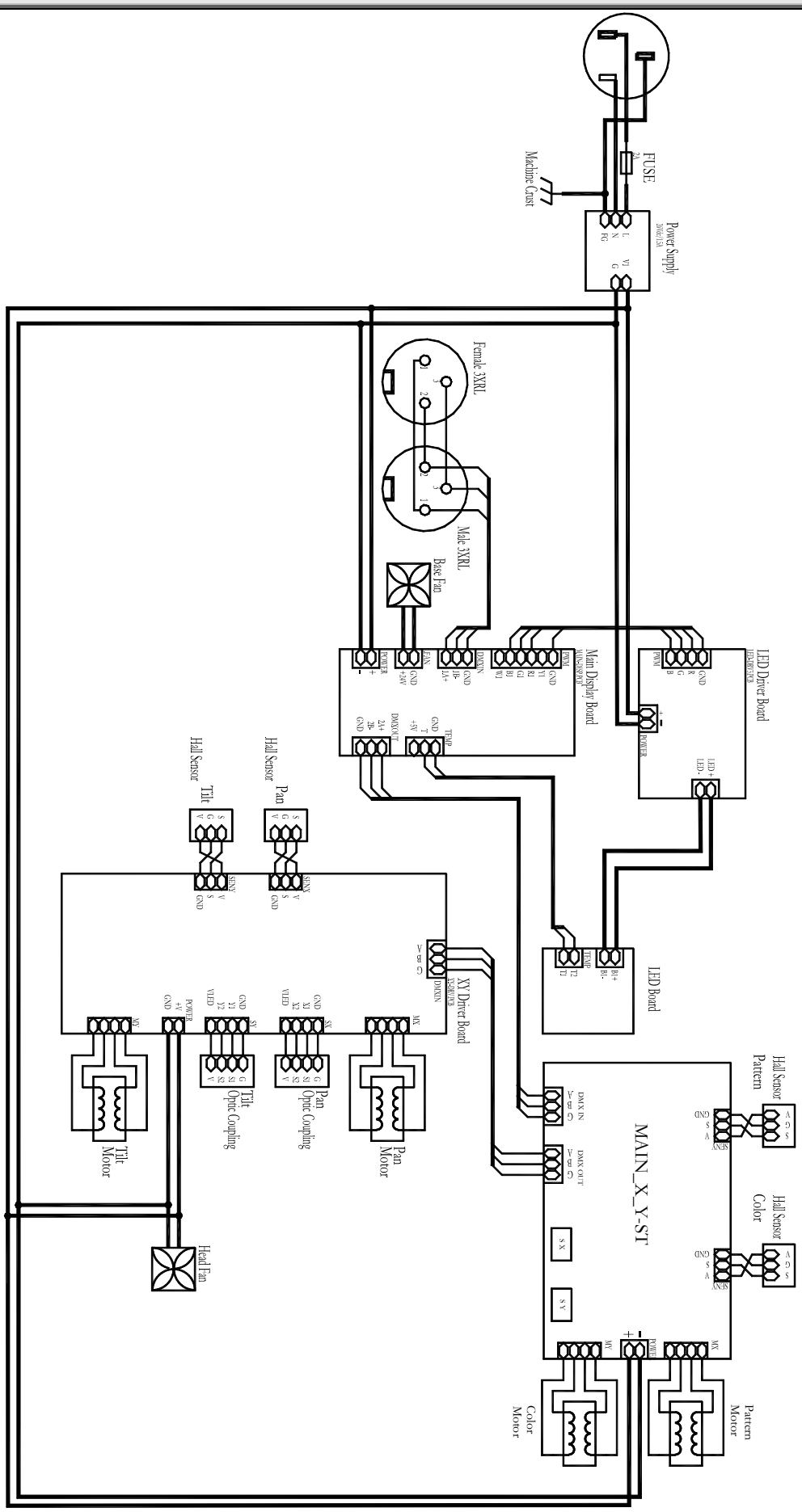


Distance	0	1m	2m	3m	5m	10m	15m
lux	0	9290.3	2322.6	1032.3	371.6	92.9	41.3

OMPONENT ORDER CODES

NO	NAME	PART NO.	QUANTITY	REMARK
1	POWER SUPPLY	190010131	1 PCS	100-240V AC/2.0 A
2	LED	150020215	1 PCS	CBT-90-W
3	FIXED FOCUS LENS	071100030	1 PCS	
4	CONDENSER LENS	071100019	1 PCS	
5	FUSE	270041037	1 PCS	5x20 3.15A
6	TILT/PAN BELT	290151337	2 PCS	HTD-3M-297
7	7015 FAN	030060078	1 PCS	24V，AD0724HB-D71
8	4010 FAN	030060070	1 PCS	24V, AD0424HB
9	PAN/TILT MOTOR	030040175	2PCS	
10	PAN/TILT MOTOR DRIVE BOARD	230060155	1 PCS	
11	COLOR WHEEL MOTOR	030040176	1 PCS	
12	GOBO WHEEL MOTOR	030040177	1 PCS	
13	COLOR AND GOBO WHEEL MOTOR DRIVE BOARD	230060179	1 PCS	
14	COLOR AND GOBO WHEEL BELT	290151263	1 PCS	HTD-126-3M
15	LED DRIVER PCB	192010144	1 PCS	
16	DISPLAY PCB	230060186	1 PCS	

CIRCUIT DIAGRAM



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